

WHAT IS CLAIMED IS:

1. A battery pack comprising:  
a first case containing a plurality of cells;  
radiator means disposed in contact with the cells within the first case, the radiator means having at least one surface for radiating heat conducted from the cells;  
a first air passage defined at least partially by said at least one surface of the radiator means, the first air passage being separated from the cells; and  
at least one air outlet formed in the first case and connected with the first air passage.
2. A battery pack in accordance with claim 1, wherein the cells are divided into a plurality of blocks and further comprising at least one second passage provided between the blocks, the at least one second air passage being in communication with the first air passage.
3. A battery pack in accordance with claim 1, wherein the radiator means includes a plurality of ribs which are oriented generally parallel to the direction of airflow through the air first passage.
4. A battery pack in accordance with either claim 2, wherein the radiator means includes a plurality of ribs which are oriented generally parallel to the direction of airflow through at least in one of the first and second air passages.
5. A battery pack in accordance with any one of claims 1 to 4 further comprising a second case smaller than the first case, the second case containing the cells and being placed within the first case, wherein the first air passage is formed between the first and second cases, and further comprising elastic material interposed between the first and second cases.
6. A battery pack in accordance with claim 5 further comprising an air inlet provided in the first case and connected with the first air passage, wherein the first air passage is defined by inner surfaces of the first case and continuous recesses provided in outer surfaces of the second case.
7. A battery pack in accordance with claim 6, wherein each of the first and second cases has a generally box-like shape, and further wherein the first air passage starts at the inlet provided in an upper surface of the first case, proceeds along a first inner side surface of the first

case, forks into two branches along two opposite second and third inner side surfaces of the first case connected to the first inner side surface, and terminates at first and second air outlets provided in a fourth inner side surface of the first case.

8. A battery pack in accordance with claim 7, wherein the second case includes first to fourth outer side surfaces corresponding to the first to fourth inner side surfaces of the first case, respectively, wherein the radiator means is a radiator plate having a generally U-shaped cross section which continuously surrounds the first, second, and third outer surfaces of the second case, and further wherein the ribs are formed on outer surfaces of the radiator plate in the first air passage.

9. A battery pack in accordance with claim 8, wherein the elastic material is disposed along upper and lower edges of the first case such that the first air passage is hermetically isolated from the cells.

10. A battery pack in accordance with claim 7, wherein the cells are divided into two blocks and the radiator means includes first and second radiator plates arranged in parallel, each radiator plate having a generally U-shaped cross section and surrounding one of the cell blocks, and further wherein the second air passage is defined between the radiator plates.

11. A battery pack in accordance with claim 10, wherein the ribs are provided on outer surfaces of the first and second radiator plates in the second air passage.

12. A battery pack in accordance with claim 10 further comprising a third air outlet provided in the fourth inner side surface of the first case between the first and second outlets, wherein a first end of the second air passage is connected to the first air passage and a second end thereof is connected to the third air outlet.

13. A battery pack in accordance with claim 10, wherein the second air passage is hermetically isolated from the cell blocks.

A1  
B3